

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY PATENT APPLICATION TRANSMITTAL (Only for new nonprovisional applications under 37 CFR 1.53(b))	Attorney Docket No.	
	First Inventor	James E. Chitwood
	Title	Substantially Neutrally Boyant and Positively Buoyant...
	Express Mail Label No.	EU 832 621 612 US

APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents.	ADDRESS TO: Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450
---	---

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☒ Applicant claims small entity status.
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 180]
(preferred arrangement set forth below)
- Descriptive title of the invention
 - Cross Reference to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 50]
5. ☒ Oath or Declaration [Total Sheets 5]
- a. ☒ Newly executed (original or copy)
- b. ☐ Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 18 completed)
- i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s)
name in the prior application, see 37 CFR
1.63(d)(2) and 1.33(b).
6. ☐ Application Data Sheet. See 37 CFR 1.76

7. ☐ CD-ROM or CD-R in duplicate, large table or
Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)
- a. ☐ Computer Readable Form (CRF)
- b. Specification Sequence Listing on:
- i. ☐ CD-ROM or CD-R (2 copies); or
- ii. ☐ Paper
- c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney
(when there is an assignee)
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure ☐ Copies of IDS
Statement (IDS)/PTO-1449 Citations
13. ☐ Preliminary Amendment
14. ☐ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)
(if foreign priority is claimed)
16. ☐ Nonpublication Request under 35 U.S.C. 122
(b)(2)(B)(i). Applicant must attach form PTO/SB/35
or its equivalent.
17. ☒ Other: 1. Certificate of Deposit
2. Return Receipt Post Card

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☒ Continuation-in-part (CIP) of prior application No.: 10/729,509

Prior application information:

Examiner


Art Unit: 3672

For CONTINUATION OF DIVISIONAL APPS only; The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The Incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

☒ Customer Number:  OR ☐ Correspondence address below

Name	William Banning Vail III			24245	
Address	3123 - 198th Place S.E.				
	PATENT TRADEMARK OFFICE				
City	Bothell	State	WA	Zip Code	98012
Country	U.S.A.	Telephone	425-486-8789	Fax	425-482-2013

Name (Print/Type)	William Banning Vail III	Registration No. (Attorney/Agent)	
Signature		Date	3/14/2004

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Certificate of Deposit by "Express Mail"

Express Mail Number: EU 832 621 612 US

Date of Deposit: March 14, 2004

I hereby certify that this paper or fee is being deposited with the United States Postal Service using "Express Mail Post Office to Addressee" Service under 37 CFR § 1.10 on the date indicated above and is addressed to the "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450."

Signed: Marilyn L. Vail
Marilyn L. Vail

TYPE OF DOCUMENT: Utility Patent Application entitled:

**" SUBSTANTIALLY NEUTRALLY BUOYANT AND
POSITIVELY BUOYANT ELECTRICALLY HEATED FLOWLINES FOR
PRODUCTION OF SUBSEA HYDROCARBONS "**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**FEE TRANSMITTAL
for FY 2004**

Effective 10/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$514.00)**Complete if Known**

Application Number	
Filing Date	
First Named Inventor	James E. Chitwood
Examiner Name	
Art Unit	
Attorney Docket No.	

METHOD OF PAYMENT (check all that apply)☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☐ Deposit Account:Deposit
Account
Number
Deposit
Account
Name

50-0499

Vails Inventions

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Fee Code	Small Entity Fee Code	Fee (\$)	Fee (\$)	Fee Description	Fee Paid
1001	2001	770	385	Utility filing fee	385.00
1002	2002	340	170	Design filing fee	
1003	2003	530	265	Plant filing fee	
1004	2004	770	385	Reissue filing fee	
1005	2005	160	80	Provisional filing fee	
SUBTOTAL (1)					(\$385.00)

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Extra Claims	Fee from below	Fee Paid
6	-20** = 0	X 9.00	= 0.00
6	-3** = 3	X 43.00	= 129.00
Multiple Dependent			

Large Entity Fee Code	Small Entity Fee Code	Fee (\$)	Fee (\$)	Fee Description
1202	2202	18	9	Claims in excess of 20
1201	2201	86	43	Independent claims in excess of 3
1203	2203	290	145	Multiple dependent claim, if not paid
1204	2204	86	43	** Reissue independent claims over original patent
1205	2205	18	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$129.00)

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity Fee Code	Small Entity Fee Code	Fee (\$)	Fee (\$)	Fee Description	Fee Paid
1051	2051	130	65	Surcharge - late filing fee or oath	
1052	2052	50	25	Surcharge - late provisional filing fee or cover sheet	
1053	1053	130	130	Non-English specification	
1812	1812	2,520	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	1804	920*	920*	Requesting publication of SIR prior to Examiner action	
1805	1805	1,840*	1,840*	Requesting publication of SIR after Examiner action	
1251	2251	110	55	Extension for reply within first month	
1252	2252	420	210	Extension for reply within second month	
1253	2253	950	475	Extension for reply within third month	
1254	2254	1,480	740	Extension for reply within fourth month	
1255	2255	2,010	1,005	Extension for reply within fifth month	
1401	2401	330	165	Notice of Appeal	
1402	2402	330	165	Filing a brief in support of an appeal	
1403	2403	290	145	Request for oral hearing	
1451	2451	1,510	1,510	Petition to institute a public use proceeding	
1452	2452	110	55	Petition to revive - unavoidable	
1453	2453	1,330	665	Petition to revive - unintentional	
1501	2501	1,330	665	Utility issue fee (or reissue)	
1502	2502	480	240	Design issue fee	
1503	2503	640	320	Plant issue fee	
1460	1460	130	130	Petitions to the Commissioner	
1807	1807	50	50	Processing fee under 37 CFR 1.17(q)	
1806	1806	180	180	Submission of Information Disclosure Stmt	
8021	8021	40	40	Recording each patent assignment per property (times number of properties)	
1809	2809	770	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	2810	770	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	2801	770	385	Request for Continued Examination (RCE)	
1802	1802	900	900	Request for expedited examination of a design application	

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$)**SUBMITTED BY**

Name (Print/Type)	William Banning Vail III	Registration No. (Attorney/Agent)	Telephone 425-486-8789
Signature	William Banning Vail III	Date	3/14/2004

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

1 IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

2
3 Certificate of Deposit by "Express Mail"

4 Express Mail Number: EU 832 621 612 US

5 Date of Deposit: March 14, 2004

6 I hereby certify that this paper or fee is being
7 deposited with the United States Postal Service using
8 "Express Mail Post Office to Addressee" Service under
9 37 CFR § 1.10 on the date indicated above and is
10 addressed to the "Mail Stop Patent Application, Commissioner
11 for Patents, P.O. Box 1450, Alexandria, VA 22313-1450."

12
13 Signed: Marilyn L. Vail

14 Marilyn L. Vail
15
16
17

18 TRANSMITTAL LETTER FOR PATENT APPLICATION WITH REMARKS

19
20 March 14, 2004

21
22 Commissioner for Patents
23 P.O. Box 1450
24 Alexandria, VA 22313-1450
25

26 Dear Sir:

27
28 Please file the following enclosed patent application
29 papers:

30
31 FIRST NAMED INVENTOR: JAMES E. CHITWOOD

32
33 SECOND NAMED INVENTOR: WILLIAM BANNING VAIL III

TRANSMITTAL LETTER WITH
REMARKS FOR PATENT APPLICATION
ENTITLED "SUBSTANTIALLY NEUTRALLY
BUOYANT AND POSITIVELY BUOYANT
ELECTRICALLY HEATED FLOWLINES...."
"Rig-3"

TITLE: "SUBSTANTIALLY NEUTRALLY BUOYANT AND POSITIVELY
BUOYANT ELECTRICALLY HEATED FLOWLINES FOR
PRODUCTION OF SUBSEA HYDROCARBONS"

TYPE APPLICATION: C.I.P. APPLICATION OF U.S. PATENT
APPLICATION SERIAL NO. 10/729,509

PAGES OF SPECIFICATION, CLAIMS, ABSTRACT: 180

SHEETS OF DRAWINGS: 50

NUMBER OF INDEPENDENT CLAIMS: 6

NUMBER OF DEPENDENT CLAIMS: 0

TOTAL NUMBER OF CLAIMS: 6

PRIORITY CLAIMED: SEE DECLARATION, FORM PTO/SB/01
and FORM PTO/SB/02A

**ADDITIONAL DOCUMENTS ACCOMPANYING
THIS TRANSMITTAL LETTER:**

1. Utility Patent Application Transmittal Form PTO/SB/05
2. Declaration for Utility or Design Patent
Application Form PTO/SB/01 and Form PTO/SB/02A
(a total of 5 sheets)
3. Fee Transmittal FY 2004 Form PTO/SB/17

TRANSMITTAL LETTER WITH
REMARKS FOR PATENT APPLICATION
ENTITLED "SUBSTANTIALLY NEUTRALLY
BUOYANT AND POSITIVELY BUOYANT
ELECTRICALLY HEATED FLOWLINES...."
"Rig-3"

1 Banning Vail III may be made from this account. William
2 Banning Vail III is doing business as an inventor under the
3 name of "Vail's Inventions". Marilyn L. Vail, the wife of
4 William Banning Vail III, may also direct that fees be paid
5 from this Account No. 50-0499. If for unforeseen reasons
6 funds are not available in that account, please let applicant
7 know as soon as possible and said deficiencies will be paid
8 immediately. In the event of overpayment of any fees herein,
9 applicant respectfully requests that any overpayment be
10 deposited into Account No. 50-0499.
11
12

13 **STATEMENT OF PRIOR ART:**
14

15 Applicant is unaware of any additional relevant art in
16 the field other than that stated in the specification.
17
18

19 **STATEMENT OF SMALL ENTITY STATUS:** Applicant hereby certifies
20 that this application is entitled to be filed under a "Small
21 Entity Status".
22
23

24 **REMARKS:**
25

26 It is noted by the inventor that the Certificate of
27 Deposit by "Express Mail" is being used. Therefore, the
28 filing date of the application is that date when the
29 application is mailed (March 14, 2004).
30

31 Mr. Robert L. Dekle was not available to sign his
32 portion of the Declaration. His signature shall be sent to
33 the USPTO at an appropriate time.

TRANSMITTAL LETTER WITH
REMARKS FOR PATENT APPLICATION
ENTITLED "SUBSTANTIALLY NEUTRALLY
BUOYANT AND POSITIVELY BUOYANT
ELECTRICALLY HEATED FLOWLINES...."
"Rig-3"

No foreign applications have been filed by applicant related to this application.

Figures 1-48 are formal drawings submitted herein. Figures 49 and 50 are informal drawings.

Although the First Inventor is Mr. James E. Chitwood, it has been decided that the Second Named Inventor, myself, William Banning Vail III, shall be responsible for all correspondence to, and from, the USPTO.

Pro-Se Case

This case herein is a pro-se case. Therefore, in the event that the USPTO objects to any, or all of the claims herein, applicant respectfully requests assistance from the Examiner under MPEP Section 707.07(j) to draft an acceptable claim based upon the disclosure and language in the application.

Further, in the event that the Examiner rejects the claims, applicant requests that Examiner direct applicant to the claims closest to allowability, and if possible, applicant further requests that Examiner preliminarily mark-up one of said claims in a future office action to further aid applicant to achieve allowability of at least one claim in an expeditious fashion.

TRANSMITTAL LETTER WITH
REMARKS FOR PATENT APPLICATION
ENTITLED "SUBSTANTIALLY NEUTRALLY
BUOYANT AND POSITIVELY BUOYANT
ELECTRICALLY HEATED FLOWLINES...."
"Rig-3"

1 DECLARATION:

2
3 As applicant, I hereby verify that all statements made
4 herein of my own knowledge are true and that all statements
5 made on my information and belief are believed to be true;
6 and further that these statements were made with the
7 knowledge that willful false statements and the like so made
8 are punishable by fine or imprisonment, or both, under
9 Section 1001 of Title 18 of the United States Code and that
10 such wilful false statements may jeopardize the validity of
11 the application or any patent issuing thereon.
12

13 This application is filed pro-se. The applicant is
14 using the book entitled "Patent It Yourself", Ninth Edition,
15 by David Pressman, and if there are errors, please advise the
16 inventor, and such errors will be corrected immediately.
17

18
19 Please address all correspondence involving this case to
20 the co-inventor at the below defined address. Thank you.
21

22
23 Very respectfully submitted,
24

25 William Banning Vail III

26 William Banning Vail III

27 Second Named Inventor and

28 President of Smart Drilling and Completion, Inc.

29 3123 - 198th Place S.E.

30 Bothell, Washington 98012

31 Home Telephone: (425) 486-8789

32 Home Fax: (425) 482-2013
33

3/17/2004
Date

TRANSMITTAL LETTER WITH
REMARKS FOR PATENT APPLICATION
ENTITLED "SUBSTANTIALLY NEUTRALLY
BUOYANT AND POSITIVELY BUOYANT
ELECTRICALLY HEATED FLOWLINES...."
"Rig-3"